Amendments to the Specification:

Please replace paragraph [0071] with new paragraph [0071], shown below

[0057] The flexible link **190**, in general, functions as a leaf spring. When the carriage **160** travels away from the wafer **12**, for example, the carriage **160** pulls the center **191** of the flexible link **190** away from the wafer **12** and rotates the gripper arms **200** into the wafer-engaging position (Fig. 4). The flexible link **190** compensates for any amount of wafer offset so that, for example, both gripper arms **200** ~~and 202~~ engage the wafer **12** even if the wafer is not centered on the wafer blade **111**. The flexible link **190** also prevents overloading of the drive mechanism **144** if an operator manually inserts a wafer of the wafer blade **111**.

Please replace paragraph [0051] with new paragraph [0051], shown below

[0051] The motor assembly **144**, through the cam **150**, drives the carriage **160** ~~150~~. Any motion by the cam **150** preferably imparts motion to the carriage **160**. The end of cam travel (*e.g.*, cam **150** is located at 0° or 180° degrees), however, may allow a couple degrees of cam motion to translate into no linear motion of the carriage **160**. The cam **150**, in other words, is not doing useful work during some portion. If the cam **150** is allowed to rotate completely to the 0° or 180° position (defined as an "overtravel" position), the cam **150** further may jam or the end effector **100** will lose track of the precise location of the carriage **160**.

Please replace paragraph [0064] with new paragraph [0064], shown below

[0091] The force sensing device **228** provides real-time data to the motor assembly **144** so that the end effector can determine immediately of there is a malfunction. If, for example, the gripper arms **200** attempt to grip the wafer **12** and a wafer **12** is not present on the wafer blade **111**, or the wafer **12** slips on the wafer blade **111**, the position of motor **146** (as determined by the Hall-effect sensors) will indicate that the gripper arms **200** missed the wafer **12** and moved too ~~to~~ far. If, on the other hand, the wafer **12** pops off the support pads **126**, the amount of force measured by the force sensing device **228** will drop immediately and indicate to the end effector that a malfunction has occurred. The thru-beam sensors **222** and **224**, in addition the force sensing device **228**, also detects the edge of a wafer **12**. In general, the force sensing device **228** and the optical sensors provide a double check system to detect a wafer **12** on the wafer blade **111**.